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AN EXPLORATION OF AN ALTERNATIVE METHOD OF STUDY SKILLS COURSE EVALUATION

by

JOHN E. LAWRENCE

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

AND RESEARCH IN PARTIAL FULFILMENT OF THE

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IN

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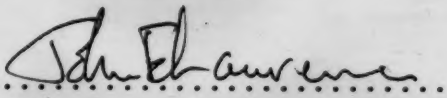

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M. P. Brown

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Date: January 10, 1983.

ABSTRACT

The purpose of this study was to obtain information about the effectiveness of a study skills course. The course was offered by the Student Counselling Services at the University of Alberta. The course was voluntary, there was no fee, and no academic credit was offered. Information was collected in two ways: (1) forty-three students who had taken a study skills course were interviewed, (2) the difference between study skills students pre and post course grade point averages was compared with the change in grade point averages of classmates who did not take a study skills course.

The interview consisted of two main questions: (1) "What changes have you made since taking the study skills course?", (2) "What are your comments and recommendations about the course?" The first question was found the most useful for obtaining information which could be used to develop recommendations for improving the course. Students reported a wide variety of changes, most of which were not directly patterned after the traditional effective study skills which were instructed in the course. It is suggested that study skills students are a heterogenous group of individuals with individually specific problems, learning styles and requirements for change. Some methods are suggested for improving course instruction and evaluation.

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CHAPTER 1

INTRODUCTION

The purpose of this study was to apply an interview method of evaluating the effectiveness of a seminar in study skills offered by a university student counseling service. The method was similar in some ways to those used in other investigations, but it was different in one significant respect: it was designed to measure changes in behaviour deemed important by the students themselves. The use of self-reported changes derives from an attempt to resolve some of the problems that have been involved with previous evaluative procedures.

Traditionally, study skills course evaluations have utilized measured differences between pre and post course results on study skills inventories, and measured differences between pre and post course grade point averages. These particular measures are predicated on the assumptions that study skills courses should help students acquire certain predetermined skills (ie., time scheduling, note-taking, reading, preparing for and writing exams, memory, etc.), and that students should be assisted with increasing their grades. Given these assumptions about the purpose of study skills courses, study skills inventories and grade point averages were appropriate measures of course effectiveness.

During recent years the purpose of study skills courses has been questioned. Much of the recent research in study skills instruction supports the suggestion that most study skills students do not need to learn the traditional technical study skills. Weigel and Weigel (1968) asked study skills students in university to fill out a study skills inventory as ideal students. The students scored over the ninetieth percentile; while the same students scored at about the thirtieth percentile when asked to fill out the inventory as themselves.

Study skills researchers are now suggesting that study skills courses should not be restricted to didactic presentations of traditional technical skills. The alternative is that study skills courses should be sufficiently flexible to help students with a wide variety of problems. It is now recognized that many factors influence a student's success at university, and that each student has individual problems and objectives. This recognition of individual differences and individual needs has prompted the development of several new designs for study skills instruction.

In England, Gibbs (1976, 1977, 1979) and Pask (1977), among others, have suggested that study skills courses should help students learn to learn. Their courses include a graduated series of experiential problem-solving

exercises and discussions. In the United States the trend has been towards the development of broadly based Learning Assistance Concept programs (Clymer, 1978). This approach is based on an attempt to provide individual students with whatever resources they require to resolve their specific individual problems. A Learning Assistance Centre would include a variety of facilities such as books, kits, computers, various instructors, etc.

Both the "Learn-to-Learn" and the Learning Assistance Concept approaches have broader objectives than the traditional approach to study skills instruction. Although the objectives of these courses have been expanded, appropriate evaluative methods have yet to be developed. Instead, instructors have been using their own in-house evaluative methods to provide them with the information they require to improve delivery. Unfortunately, these are informal methods which have not been usable for publication. For example, Gibbs has incorporated an ongoing conversational approach within his instructional procedures. He talks with students during the course, and incorporates the feedback immediately; so he knows immediately whether students are achieving the objectives. A variety of evaluative measures have been utilized in Learning Assistance centres. Clymer surveyed 231 Learning Assistance centres and she found that although study skills

inventory results, and changes in grade point averages are still the most popular indices of course effectiveness, there is a trend towards informal evaluative procedures such as questionnaires and self-reports.

Informal self-reporting has the advantage of providing instructors with specific information about individual students. Instructors can also easily adapt this information-gathering method to suit differences among courses or students. Informal evaluative methods are partially appropriate to the objectives and methods of instruction employed in broadly based study skills programs, but they also have the problems of being difficult to report.

At present there is a need for a method of evaluating study skills courses which is both consistent with current objectives, and which can be formalized sufficiently to be reported. This study is an exploration of one possible method. The evaluative method which is employed in this study is actually composed of two main parts. One part involves the conventional analysis of change in grade point averages. The other part involves interviewing students who took the study skills course. Students were essentially asked two questions: What are your comments about the course?, and, What changes have you made since taking the course? This last question was the most important.

The collection and assessment of students' self-reported changes is a method which is based on three assumptions: (1) the single most important objective of the study skills course is to assist students with making changes (in grades, traditional technical skills, or personal issues) that will enhance their ability to succeed at university, (2) the student is the best judge of which changes actually make a personal difference, (3) students' changes may occur in a variety of directions, so students should be encouraged to report any changes, regardless of whether they appear to satisfy traditional effective study skills criteria.

This study is an attempt to report the results of an informal, self-report type of evaluation. Because this study involves both the development and application of an evaluative method, the discussion includes some comments on the effectiveness of the evaluative method as well as some comments on the effectiveness of the study skills course which is being evaluated.

The study skills course which was evaluated in this study was comprised of three two-hour classes (one per week) offered by the University of Alberta Student Counselling Services. The course was voluntary, no fee was required, and no academic credit was offered. The classes included some didactic instruction of the traditional study skills as well as some individualized problem

solving and group discussion exercises. The course had two primary objectives: Objective One - To help students acquire the traditional technical study skills, Objective Two - To help students make whatever changes they individually require. The purpose of the evaluation was to determine: (1) the changes (both Objective One and Objective Two types) study skills students reported having made since taking the course, (2) the students' comments about the course, (3) the changes in students' grade point averages. The study was also designed to report on the advantages and disadvantages of this evaluative method, and to make recommendations for methods for study skills course instruction and evaluation.

CHAPTER 11

LITERATURE REVIEW

The following review of related research and literature is presented in four major sections: (1) the types ot students in study skills courses, (2) the contents of study skills courses, (3) the instructional methods used in study skills courses, (4) the methods that have been used to evaluate study skills courses.

Types of Students in Study Skills Courses

One of the major variables in any course is the nature of the student population. This variable will have a strong influence on every other aspect of the course. The research on study skills courses has included a great variety of student types. This section includes descriptions of the main categories of post-secondary study skills students. These categories include: (a) students who have been required to attend study skills courses, (b) students who attend adjunct study skills courses, (c) students who attend study skills courses voluntarily.

Obligatory Attendance Attendance in study skills classes may be obligatory in two situations: (a) when students are judged to be high academic risks because of low entrance qualifications, or low university grades, (b) required training programs (ie., the armed forces).

With the increase of open-door admissions colleges there has been a growing concern that students might lack the requisite learning skills. Some colleges require that specially admitted first year students take a study skills course. There is some evidence that the courses offered to these students are the most effective type of study skills course. Lynn (1978) surveyed study skills courses to find which were the most effective. She concluded that the best results were obtained when, (a) students were screened and admitted on the basis of low SAT scores, (b) attendance was mandatory, (c) students received academic credit on a pass or fail basis for successful completion of the course.

Evaluations of obligatory study skills courses in military settings have also found positive results. Usova (1979) conducted a fifteen week, one hour per week course in a military college, and she found that grade point averages increased significantly. McCombs and Dubrovolny (1980) developed and administered a sophisticated Computer Managed Instruction Program to military personnel who were about to take an advanced technical training program. Students' skill levels were individually diagnosed and individualized learning modules were made available on computer. Consequent technical training time was reduced, and performance levels increased. The

authors concluded that the programs were beneficial in terms of effectiveness, efficiency, and cost.

Mandatory study skills course have usually produced positive results. Although there have been many types of obligatory courses, there appear to have been some common factors that are related to positive results. These factors have not yet been clearly isolated or defined. One should note that these results have usually been obtained through the use of pre and post course comparisons of study skills inventory results, and measured changes in grade point averages.

Adjunct Courses. Some researchers such as Coles and Fleming (1978), Elton, Hodgson, and O'Connell (1979), Entwhistle (1979), Scappaticci (1977), and Shepherd (1979) have suggested that students' development as learners is inextricably bound up with their development as subject specialists. They have argued that the effectiveness of study skills courses depends on promoting an awareness of teaching and learning issues within specific subject contexts, rather than through more general remedial courses.

Adjunct courses have been conducted in many subjects, with a variety of instructional methods. The results have varied from ineffective to effective. Entwhistle's students generally thought that his two one hour classes were useful but too short to have any last-

ing effect on their study habits. Elton interviewed students in his adjunct classes and found that although they had taken note of what was instructed, they had generally become more confirmed in their previous methods. Scappaticci found that grade points did not change, but students who had been taught SQ3R remembered the method. Wilson (1978) found that students' grade point averages and their scores on a study skills inventory increased. Moran (1980) found that grade point averages for students in adjunct study skills courses increased most for those with the lowest grades.

Students in adjunct courses can not easily be typified. Adjunct courses have been offered in such a variety of situations, that general definitions and conclusions are impossible.

Voluntary Attendance. The types of students who participate voluntarily in study skills courses are also difficult to generalize. Researchers have not agreed on why students attend, nor on the most effective methods of instruction. Van Ness (1981) stated that many study skills courses have attempted to offer solutions without first describing the problems.

Weigel and Weigel (1968) tested the common sense assumption that students attend study skills classes to learn study skills. They asked participants in a study

skills class to fill out the Survey of Study Habits and Attitudes (Brown and Holtzman, 1967) as if they were ideal students. The average score was at about the ninety-fourth percentile. This compared with scores in the 30-40 percentile range when students responded as themselves.

Robyak (1978) hypothesized that study skills students have various problems related to personality and social adjustment. He explored some personality characteristics of study skills students, but he did not find major factors that could be used to formulate different instructional approaches.

It has proven difficult to make general statements about why students take study skills courses. Several possible explanations have been presented. Sappington (1980) suggested that many students were covering underlying emotional problems. This suggestion has been offered by other authors in slightly varied forms. Griffin (1978) worked with the idea that these students were looking for help with interpersonal communications. Katz and Wright (1977) suggested that students were looking for a support group. Manzo and Casale (1977) worked on the premise that study skills students might have any number or types of problems; and therefore what they needed were general problem-solving skills.

This hypothesis has been further developed by Gibbs (1977) and Pask (1978). They have prepared study skills training manuals which are based solely on problem-solving exercises. In the United States, Clymer (1978) found a trend towards the development of multi-faceted learning assistance programs. The learning assistance concept is based on the idea that no one course could be appropriate for all students, and that programs should be designed to make a variety of resources available to students.

Study skills students are a heterogenous group. The variety of situational variables has prevented researchers from making accurate comparisons or generalizations. Students who have attended mandatory courses appear to have had most in common, and evaluations of these students have found consistently positive results. Adjunct course students vary too greatly for any general comment. Volunteer students have not yet been properly described. Some evidence supports the suggestion that volunteer study skills students require various types of assistance, including technical skills instruction.

Contents of Study Skills Courses

Hounsell (1979) distinguished two approaches to helping students become more accomplished learners: "One conception tends to emphasize the acquisition of

skills and is concerned with means, or techniques; the other tends to emphasize an awareness of purpose, and is concerned with ends, and the individual's relationships to those ends. One seperates technique from agent (Smith, 1978) and the other sees process as inseperable from the individual" (p.461). In general, the process approach emphasizes the methods of instruction rather than the contents; in a sense, the contents are the learning processes that the students work with in class. The technical approach is based on the presentation of a fixed schedule of skills, while the process approach assumes that individual students will develop their own skills.

The instructional sequence typically employed in process oriented courses has included (1) establishing initial individual learning problems, (2) individual explorations of solutions to the problems, (3) discussions in groups about the solutions, and suggestions for alternative solutions from the group and the instructor (Gibbs, 1975; Gibbs and Northedge, 1977; Hounsell, 1979; Manzo and Casale, 1977; Salinger and Payne, 1980). A similar approach which emphasizes conversational dialogues between the instructor and individual students was developed by Augstein and Thomas (1978), and Pask (1976, 1977). The process approach is ostensibly content-free. Students

are assisted with articulating their perceptions of the purposes of their study tasks, and with fostering a questionning self-analytic attitude to studying (Hounsell, 1979). The content is provided by the students' insights and solutions. The instructors assist by providing (a) individual study tasks, (b) a supportive group context for reflection and discussion, (c) alternative problem resolution processes.

Gibbs (1977) has provided a manual for leading these problem-solving groups. Hounsell found that the manual was "in the hands of over one thousand teachers in higher education without any major publicity or marketing exercise" (p.453). Hounsell also noted that despite the exclusion of skills instruction, "The exercises which the manual provides represent an implicit inventory of significant study processes" (p.462). Perhaps the central issue here is that the instruction of specific technical skills is subordinated to exercises which lead individuals to develop their own skills.

The technical approach to study skills instruction places primary emphasis on helping students to acquire the specific skills. The precise list of skills which would normally be instructed varies from course to course, but there are many similarities. For example, the manual used at the University of Alberta Student Counselling

Services provides a classic illustration of the skills that would normally be instructed. This manual was compiled by Morgan and Deese in 1957, and was revised by Deese and Deese in 1979. The latest edition includes chapters on: the art of studying (setting priorities and scheduling), the classroom experience (utilizing lectures), the art of reading, studying from textbooks (SQ3R - survey, question, read, recite, review), writing papers, and taking examinations. This design was developed for the North American university context. A British equivalent includes information on study organization, reading, note-making, essay-writing, and learning in seminars (Da Costa, 1979).

Study organization, or the art of studying includes topics such as; attitude, motivation, goals, priorities, and scheduling. Deese and Deese stress time management and scheduling. The objective of this type of instruction is to teach students methods of scheduling their time so that they achieve their priorities.

Behavioural modification techniques have often been used in conjunction with time management instruction. Glasgow and Rosen (1978) reviewed the use of contracting, rewards, and self-monitoring techniques for creating changes in scheduling. They found that contracting was not as effective as self-monitoring. They also noted

that the major problem with the behavioural modification techniques is that students often do not comply with the instructions. Glasgow and Rosen thought that more research is required to understand why students do not comply.

The art of studying, or time management as it is commonly called has been one of two main emphases in the program offered at the University Student Counselling Services. The other focus has included reading related skills. At some universities reading programs may be offered instead of study skills courses. If reading is the primary focus then other skills are taught as they relate to reading. Some universities offer very comprehensive reading programs. Wassman (1977) visited and studied 25 reading programs offered in California colleges and she concluded that, "The ideal reading program is an eclectic one, employing extensive diagnostic testing, a variety of materials, well trained instructors, tutors and paraprofessionals, and a balanced combination of individualized laboratory practice and classroom interaction" (p.1). She emphasized that the ideal program utilizes an eclectic approach to satisfy the needs of individual students in their particular environments.

Wassman also states that a crucial factor in the college reading programs was the staff: "Each college's

reading program is as viable as the people involved and committed to the program" (p.14). This comment may be intended as a warning about the tendency of some programs and instructors to depend on mechanical aids such as kits, books, machines, and computers for teaching reading skills. Wassman's position is that these are instruments to be employed as adjuncts by qualified staff.

The eclectic approach to reading instruction helps resolve some of the disagreement over what exactly should be taught. Most of the specific techniques are subject to controversy. Some of the techniques which have been discussed include: underlining (Annis and Davis, 1978; Bausell and Jenkins, 1977; Deese and Deese, 1979), self-questioning while reading (Andre and Anderson, 1978), methods of note-making (Pauk, 1978; Solon, 1980), and formalized reading processes such as SQ3R (Scappaticci, 1977; Shepherd, 1979; Tadlock, 1978), ESP - enlighten, study, preview (Kahn, 1978), 5R - record, reduce, recite, review, reflect (Pauk, 1978). Although the research on reading has focused on developing the principles of active reading, the result has been an increasing number of reading techniques. Anderson and Glover (1981) have stated that despite this increase, we still have no theoretical basis for understanding how active reading works.

The lack of a theoretical basis for explaining how active reading works is a situation that is frequently mentioned by those who favour the individual learning process approach to study skills instruction. For example, Pauk (1978) has said that "Stress on technique is silly....whatever technique is used, the learning depends on the learner's thinking and engagement with the material" (p.97). Tadlock reached a similar conclusion following her investigation into the reasons for the effectiveness of the SQ3R method. She decided that the particular characteristics of the technique were irrelevant, and that any formula could work equally well: "If people believed it would work, it would" (p.110). Gibbs suggested that different students would need different techniques. He recommended that instructors should be more concerned with assessing the specific learning styles and requirements of individual students.

Gibbs approach presupposes that students have individual learning systems, and that these systems are integrated, stable and self-perpetuating. Gibbs suggests that people naturally resist changes, so instruction should be adjusted so that it can be incorporated into individual systems without threatening their continuation. He also suggests that students be given time and freedom to experiment with modifications.

At this time, the trend in study skills instructional methods is towards eclectic combinations. For instance, Da Costa, who favours the organized presentation of traditional skills, says "Study skills are there to be tried on for size, reshaped, fitted again, some bits discarded, others moulded until they become a tool to serve the learner's individual size, shape, whims, and quirks" (p.456). This statement represents a compromise between the technical skills, and individual process oriented approaches.

A course which combines specific skills instruction with emphasis on individual learning processes has been developed by Helweg-Larsen (1977) for use in an intensive six day program. He taught general skills which could be applied in a variety of contexts. Helweg-Larsen expressed doubts that students learn new skills from books, or without intensive practice. He identified four areas in which explicit training in study skills has proved effective: speed and modes of reading; non-linear "patterned" note-making; mnemonics; and mental strategies which encourage active engagement with learning materials. These skill areas are similar to those presented by Deese and Deese, and Da Costa, except that Helweg-Larsen has succeeded further in isolating the basic learning principles from the contextual paraphenalia

related to the university. He has identified his program as distinct from the courses which are based on the popular study skills manuals. He claims that neither the authors nor the instructors "seem to realize quite how radically it is possible to increase students' effectiveness during study" (p.13). This positive attitude may be an influential factor in itself. Covington (1977) explored students', instructors', and professors' attitudes about study skills courses and she found that the study skills course instructors expect the least about what the course will achieve. The instructors also attach least importance to skills that are instructed.

An exhaustive listing of study skills course contents has not been attempted here. Instead, some of the major components of these course have been described. It is apparent that the sort of material which is instructed depends largely on how the instructor perceives the function of the course. In the following section more information will be presented on methods of program delivery.

Methods of Instruction

Some information on methods of instruction has been presented in the last section. Methods of instruction and course contents can not easily be distinquished. Although the division may be overly arbitrary in some

cases, it is useful in other cases. For example, it is possible to teach the same material in different ways. One of the crucial factors which bears on the choice of instructional method has to do with the course format. Most courses are delivered by one or two instructors to a class of students. However some courses are organized around computers, and other courses involve students and tutors in one-to-one contact.

Group Instruction. Two major approaches to group instruction are presented here. These have been referred to earlier in this review as the technical study skills approach, and the individual learning process approach.

The technical skills instruction approach has been exemplified in studies reported by Da Costa (1979), Dansereau (1979), Haburton (1977), McPhail (1978), Mussano (1977), Parker (1977), and Troutman (1977). Essentially, this approach utilizes a conventional classroom format, including 10-30 students, one instructor, 1-3 hour weekly classes, a planned outline (curriculum), lesson plans, lectures, exercises, questions and answers, homework, review, and evaluation.

Within the process approach, contents and methods of instruction are integrated. The principle method of assisting students with making changes that are consistent with their individual learning processes involves

problem-solving (Augstein and Thomas, 1978; Gibbs, 1977; Manzo and Casale, 1977; Northedge, 1975; Pask, 1977; Salinger and Payne, 1980). Students are given problems to resolve, and afterwards, discussions occur in increasingly larger groups and with more participation of the instructor. In these discussions students explain their processes of problem resolution, and listen to others' methods. Salinger and Payne emphasized that the instructor must be well-informed of alternate strategies that can be offered to students.

Methods of group instruction which focus on individual processes, but which do not rely on a problem-solving approach, have been described by Bulton (1978), Griffin (1977), and Katz and Wright (1977). These researchers have hypothesized that students require interpersonal communications skills and group support. They have employed methods of Rogerian counselling, communications instruction, and group discussions in courses which last six to ten sessions. Katz and Wright compared a support group with a technical skills instruction group and they found that although those in the support group showed fewer failures and withdrawals while the course was on, these figures increased more after the course than those for the students who had been in the technical course. The authors wondered if there is a way

of sustaining the support group effect.

The controversy over what study skills students require, and what are the best methods of delivery is largely unresolved. Some authors (Christ, 1971; Mione, 1977; Robyak, 1978; Wankowski, 1978), have questionned whether any single instructional method could be appropriate for a class of students. Robyak has identified some characteristic differences between types of students on study skills and personality scales, but he has not identified appropriate methods of working with these differences in class settings. Mione and Wassman (1977) conducted surveys and found that the best courses employ a variety of instructional methods. Christ, and McCombs and Dubrovolny (1980) have demonstrated how computers can be integrated into the diagnostic, teaching and evaluation levels. These authors who support an eclectic approach to instructional methods presume that individual differences will be accounted for by variety. A deeper criticism of group instruction comes from Wankowski who questions whether the major objective of most study skills courses, to help students become more flexible autonomous learners, is appropriate for most students. It is one matter to use various methods to achieve a common purpose, but the issue is considerably complicated if a variety of methods have to be used to achieve each of a variety of purposes.

Individual Instruction. One-to-one instruction has been suggested as an alternative to class instruction. The research on study skills includes little information on one-to-one sessions between instructors and students. This type of instruction is not generally considered to be study skills instruction; it is individual counselling. At the University of Alberta Student Counselling Services students may receive individual attention if the counsellor and the student agree that there are certain problems which would not be properly resolved in a class setting. The cost of working this way with all study skills students would be prohibitive.

Some researchers, such as Fremony and Feindler (1978), and Gadzella (1979) have attempted to offer one-to-one instruction without increased costs, by instructing students' peers to work as individual tutors. Both of these studies found that peer instruction was at least as effective as class instruction, and given the cost-effective methods used to instruct the tutors, they suggested that peer instruction was an economic alternative to class instruction.

Computer Assisted Instruction. Christ (1969) described a system of utilizing computerized diagnoses of individuals' study skills levels to match students with computerized learning modules. Mione (1977) and Wassman

(1978) suggested that CAI was most effective when used with other instructional methods such as in-class skills drills, dialogue with an instructor, and psychological based group work. McCombs and Dubrovolny (1980) reported on the effectiveness and efficiency of using CAI to prepare military personnel for advanced training courses.

Negative comments about CAI are notably absent. Those programs which have had the resources to develop CAI programs have found them beneficial. It appears likely that as the costs of both the machines and the software decrease, more learning assistance centres will incorporate CAI into their existing programs.

In general, group instructional methods are the most popular. There is little agreement about what study skills students require nor how best to instruct them. Most instructors appear to be experimenting with combinations of traditional didactic presentations, and more experiential problem-solving, and group participatory approaches. Those facilities with the resources are also including CAI. Another divergent instructional method which has produced positive results is the use of students' peers as study skills tutors on a one-to-one basis. The major problem with group instruction is the difficulty of instructing students who have such a wide variety of individual problems.

Methods of Evaluating Study Skills Programs

Three methods have commonly been employed to evaluate study skills programs. One of these involves measuring the differences between pre and post course grade point averages. The second method involves measuring the differences between pre and post course responses on a study skills inventory form. Both these methods are essentially quantitative and statistical. A third category of informal methods is also available. Interviews, self-reports, and questionnaires are actually more frequently used for in-house evaluations than the two formal methods described above (Clymer, 1978), but because of their nature they are seldom reported.

The majority of reported evaluations have utilized measured differences between pre and post course grade point averages and results on study skills inventories. Clymer surveyed 231 post-secondary learning assistance centres and found that 62.8 percent used standardized tests and 45.7 percent analyzed change in grade point averages. Many centres used more than one method. About 71 percent of respondents reported employing informal evaluations.

Comparisons of pre and post course grade point averages have produced consistently positive but

statistically insignificant results. Tillman (1972) surveyed 31 study skills course evaluations and found that 23 of these reported an increase in grades that was insignificant. Piatkowska (1978) surveyed 49 evaluations and found that 41 of these reported an insignificant increase. Typically, study skills students' grade point averages do not increase.

Comparisons of pre and post course study skills inventory results have yielded consistently positive results (Bulton, 1978; Dansereau, 1979; Fremony & Feindler, 1978; Gadzella, 1980; Haburton, 1977; Mussano, 1977; Parker, 1977; Robyak, 1978; Seni, 1978; Troutman, 1977, Tryon & Sy, 1977; Uhlemann, 1979). However, these results may be deceptive because there are questions about the reliability and validity of study skills inventories.

The third method of evaluation is generally used for in-house evaluations. The results of unstructured, or structured questionnaires, informal verbal reports, or other forms of self-report, are non-standardized and difficult to use empirically. However, these methods are frequently used, and evaluators claim that they are the most useful means of obtaining information on which to base program improvements (Clymer,1978).

Clymer is convinced that there is a need for the development of methods for reporting the informal in-house

evaluations. This need exists largely because the quantitative methods of evaluation have been found inappropriate for evaluating the types of study skills courses that are now being offered. Most courses are designed to help students make a variety of types of changes, including changes in grades. Comparisons of grade point averages provide only one type of information. Study skills inventories provide another type of information. Unfortunately, study skills inventories require students to answer certain predetermined questions. The answers are scored in one way. The implicit assumption in the use of study skills inventories is that there is one right way to study. Inventories were appropriate when the sole purpose of study skills instruction was the inculcation of the correct techniques. Today, few courses are so unipurposive. Ford (1980) stated clearly the attitude towards students' use of study skills that is prevalent today: "Often successful students do not use good study habits (Lafitte, 1963), whereas poor students do (Maddox, 1963)" (p.72). There is a need now for evaluative methods which are consistent with the objectives of the courses being taught.

The discrepancy between what study skills inventories test, and what students need to know to be successful in the university environment has been demonstrated

statistically (Entwhistle, 1980; Farrell, 1977; Gibbs, 1979; Maxwell, 1970). Gibbs concluded "There is no evidence of causal relationships between study skills and performance. Even the most extensive of correlational studies typically find that variance in scores on study skills inventories 'explains' only about 1% of variance in performance" (p.2). Many factors besides the knowledge of specific skills effect a student's performance. Study skills inventories are very restricted sampling devices.

Study skills inventories have also been criticised for poor construction. Uhlemann (1979) compared three inventories frequently used in Canadian universities After analyzing concurrent and predictive validity data he concluded that two of them had almost no overlapping variables, and that in all three cases, high school marks and IQ had higher predictive validity for university marks. Uhlemann recommended that we either develop better diagnostic instruments, or use other methods.

Although there is a growing concensus that study skills inventories are not appropriate methods for evaluating study skills courses, there remains a paucity of alternatives. (Clymer, 1978). A method, or methods, is required which (a) serves the in-house functions of assessment, accountability, and program improvement,

(b) accounts for a wide variety of individual differences, (c)is consistent with an eclectic blend of technical and individual learning process objectives, (d) can be reported and compared with results from other programs.

CHAPTER 111

METHODS

The Problem

The study skills course which was offered by the University of Alberta Student Counselling Services was designed to help students learn some traditional study skills as well as to help them make whatever individualized adjustments they required to cope with university. The problem was to develop and apply a method for evaluating the course which was appropriate to the course objectives.

The Plan

Two methods of evaluation were chosen:

1 Interviews with study skills students during which two questions were asked:

   (a) What changes have you made since taking the course?

   (b) What are your comments about the course?

2 Measurement of differences between pre and post course grade point averages.

The Course Description

The program offered during the Fall of 1981 was divided into eight sections which were attended by a total of about 200 students. Each section was normally

comprised of one two hour class per week for three weeks. Attendance was voluntary and no academic credit was offered. There was no fee. The traditional technical skills instruction was based on the manual, How to Study (Deese and Deese, 1979), which includes a standard selection of content. The method of instruction included lectures, group interaction exercises, and individual problem-solving exercises followed by discussions.

The Participants

The students. Students on the Fall 1981 study skills class lists were contacted and forty-three volunteered to participate. Descriptive data for the sample group are provided in the following section.

Table 1

Study Skills Students' Ages

(n=43)

Age	Frequency	Age	Frequency
18	5	28	2
19	3	29	1
20	7	30	1
21	3	31	1
22	6	32	1
23	2	35	1
24	2	42	1
25	2	55	1
26	2	58	1
27	1	Median age - 22	

Table 2

Study Skills Students' Faculties

(n=43)

Faculty	Number
Physical Education and Recreation Administration	1
Fine Arts	1
Engineering	3
Business Administration and Commerce	4
Education	5
Science	13
Arts	16

Table 3

Study Skills Students'

Year Levels (n=43)

Year	Number
One	16
Two	10
Three	9
Four	4
Five	2
Six	1
Nine	1

Table 4

Study Skills Students' Self-Reported Reasons for Taking the Course (n=43)

	Reasons	Frequency
1	To improve time management, ie., more efficient use of time, better scheduling.	14
2	To learn, or improve any or all study techniques.	9
3	I had been out of school a long time and I wanted a general orientation to studying.	5
4	Uncertain; general interest.	4
5	I wanted confidence in my ability to succeed at university.	4
6	To prepare for the anticipated, and feared, increased demands of university.	4
7	To improve memory.	3
8	To improve concentration.	3
9	To improve reading.	3
10	I was in high school last year, and I know I did not have study skills then.	3
11	To get better grades.	3
12	General orientation to the university, ie., physical organization, expectations, social conditions, etc.	3
13	Counsellor referral.	2

Table 4 cont'd.

	Reasons	Frequency
14	"I wanted to resolve depression, and anxiety related to being a student."	2
15	Encouragement.	2
16	"I wanted assurance that the study methods I was already using were the right ones."	2
17	To improve essay writing.	2
18	"I wanted to know the right way to study."	1
19	"I knew I was lazy and my parents wanted me to get good marks."	1
20	To improve note-taking.	1
21	Referred to the course by a friend.	1
22	"I knew I could do better if I had priorities and was better organized."	1
23	To gain in-depth psychological information about studying.	1
24	"I wanted what Evelyn Wood offered, but without the fee."	1
25	To improve discipline.	1
26	To improve motivation.	1
27	"I wanted time for other things."	1
28	"I did not know if I should stay in Engineering."	1
29	"I wanted to review all the common sense stuff."	1

The Interviewer. The interviewer was an M.Ed. (Educational Psychology) student experienced in interview techniques and study skills instruction.

The Grade Point Analysis Sample. Sixty-two students were included in the comparison of pre and post course grade point averages. All of these students attended at least one study skills class offered during the Fall of 1981.

Twenty-nine of these students had been in attendance at the University of Alberta during the 1980-81 academic year. Thirty-three students in the grade point analysis sample had attended grade 12 in the year previous to their attendance at the University of Alberta.

The Interview

The Pilot Interviews. A series of pilot interviews were conducted with nine students. A semi-structured interview format was developed and employed. This interview included three main question groups:

1 Student Status

- a What is your age?
- b What faculty are you in?
- c What were your reasons for taking the study skills course?
- d How many study skills classes did you attend?

2 Changes

- a What changes have you made since taking the study skills course?
- b (various rephrasings of the question above)

3 Comments and Recommendations

a What are your comments about the course?
b What are your recommendations for future courses?

The prospective participants in the pilot interviews were contacted by telephone. Nine students volunteered. They were given a choice of locations for the interview, Two chose the interviewer's office, four chose a public lounge area, and three said it would be inconvenient for them to meet anywhere so the interview was conducted by telephone.

In-person interviews were tape-recorded. The audiotapes were reviewed and notes were written. Telephone interviews were recorded in manuscript while the interviews were in progress.

The Interview Format. The pilot interview tapes and notes were reviewed by the interviewer and colleagues at the Student Counselling Services. Five decisions were made:

1 Maintain the three question groups, and subquestions as they were used for the pilot interviews.

2 Maintain the semi-structured conversational format whereby the order of questions could vary, and information other than that specifically requested was permitted.

3 Solicit specific responses to the questions about changes. ie., "What do you do differently now?" "I'm not sure I fully understood, could you tell me exactly what you do differently since taking the course?

4 Maintain the choice of physical contexts for the interviews. Information was equally useful whether it was obtained in the office, a public place, or by telephone.

5 Include the results from the pilot interviews in the research results.

The Interview Schedule. The interviews occurred between February 15, and March 15, 1982. This was about four months after the study skills courses were completed. The precise timing of the interviews was variable. The interviews lasted an average of thirty to forty minutes. Eighteen interviews were conducted by telephone and 25 were conducted in-person.

Analyses of Grade Point Averages.

Two sample groups were included in the pre and post course comparison of grade point averages. Both samples were drawn from the total population of students who attended study skills classes during the Fall of 1981. The first group included 33 students who had been in grade twelve during the academic year previous to their attendance at the University of Alberta. Grade twelve grade point averages were gathered and an average was found for the total group. Grade point averages were also collected for all members of this group at the end of the Fall 1981 academic term, and an average of these averages was computed. This average was compared with the average of all the class averages in which the

students were enrolled during the Fall, 1981.

The second group included 29 students who had been in attendance at the University of Alberta during the academic year immediately preceding their their attendance in the study skills courses. Grade point averages were found for these students from the end of the Winter 1981 term, and from the Fall 1981 term. These averages were compared with the grade point averages obtained from the classes these students attended during the Winter term of 1981, and the Fall term of 1981.

A single sample non-directional *t* test was used. The Winter 1981 average class grade point average was used as the sample mean, and the Fall 1981 average class grade point average was used as the sample mean. The variance of the subjects' grade point average changes was compared to the change in total class grade point averages.

The null hypothesis. Mitchell and Piatkowska (1974), and Tillman (1972) have found that most voluntary study skills courses are not related to statistically significant increases in grade point averages. Therefore, in this study, it was hypothesized that the change in study skills students grade point averages would not be significantly different from that of a group of classmates who received no study skills instruction.

The Presentation of the Interview Data

Responses to the two interview questions were summarized and presented in Chapter 4. Students' self-reported changes were categorized in two ways: (1) according to the major instructional divisions, (2) according to the two major course objectives.

The Discussion of the Results

The discussion of the results was divided into four main sections: (1) comments on the methods of evaluation, (2) comments on the effectiveness of the course, (3) recommendations for study skills course instructional methods, (4) recommendations for instructional methods.

CHAPTER 1V

RESULTS

Study Skills Students' Self-Reported Changes

The students reported a wide variety of changes. These changes have been summarized and categorized under two groups of headings, which are (1) the major instructional areas (time management, reading related skills, miscellaneous study skills, "no change"), (2) the two major course objectives (Objective One - those changes which show that students began practising the specific technical skills which were instructed in the course; Objective Two - the changes students reported which show that they either modified the specific skills for their own purposes, or else made other individually appropriate changes which were largely unrelated to the specific skills which were instructed in the course).

Table 5

Changes Categorized by Instructional Areas

	Reported Changes	Frequency
Time Management		
1	A written schedule was adopted as instructed, and was later terminated. Subsequent practices were:	
	(a) reverted to previous method of not scheduling.	2

	Reported Changes	Frequency
	(b) more time spent planning time utilization.	4
	(c) a modified or occasional written schedule was used	3
2	More time spent planning time utilization.	6
3	Regular use of a written weekly schedule.	5
4	Regular breaks taken while studying.	5
5	More time spent socializing.	4
6	A modified or occasional written schedule was used.	3
7	More time spent exercising.	2
8	More time spent relaxing.	2
9	Previous personal methods of scheduling were confirmed.	2
	Reading	
10	Notes made while reading.	7
11	Practised scan reading.	6
12	SQ3R method used.	5
13	Used a modified form of SQ3R.	3
14	Previous personal methods of reading were confirmed.	2
15	Reading comprehension improved.	2
16	Began reading for main ideas.	2
17	Less time needed for reading.	2
18	Began highlighting texts.	1

	Reported Changes	Frequency
	Miscellaneous	
19	More assignments and studying accomplished.	6
20	Bought How to Study (Deese and Deese, 1979)	4
21	Improved memory.	3
22	More time spent determining personal priorities and motivation.	2
23	Began taking more notes during lectures.	2
24	Began recopying and reviewing notes taken during lectures.	2
25	Began using a consistent location for studying.	2
26	Feels more confident.	2
27	Transferred faculty registration.	2
28	Dropped two courses.	2
29	More contact with professors.	2
30	Withdrew from university.	2
31	Felt more relaxed during exams.	2
32	Assignments done on time.	1
33	Better prepared for classes.	1
34	More excited and involved in course work.	1
35	Increased familiarization with the university.	1
36	Used relaxation methods to fall asleep at night.	1

	Reported Changes	Frequency
37	Used file cards for preparing essays.	1
38	Performance during exams improved.	1
39	Withdrew from one course.	1
40	Stopped trying to take complete lecture notes.	1
41	Developed personal note-taking, review, and memory techniques.	1
	No Change	
42	No change reported.	9

Seventy-nine percent of the students interviewed reported that they had made one or more changes since taking the study skills course. (General statements like, "I felt encouraged by the group", "I work better now", or "I am more aware of how to study" were not included in the above list.) In total, 111 specific changes were reported. This averages to 2.6 changes per student, or 3.3 if those students are not included who did not report any changes. Thirty-four percent of the reported changes related to time management, and 27 percent related to reading methods.

The categorization of students' self-reported changes which follows is designed to illustrate whether students learned traditional skills, or made changes that were more idiosyncratic.

Objective One: Students will learn and practice study skills in the following areas: time management, reading, note-making, classroom methods, taking exams.

Objective One Type Changes

Time Management. Five students said they began using a written weekly schedule as instructed in the course, and they were still using it at the time of the interview. Five students said they began taking regular breaks while studying. Eight students reported balancing their schedules more effectively: two said they scheduled more time for exercising, two said they scheduled more time for relaxing, and four said they scheduled more time for socializing.

Reading and Note-Making. Students associated skills in these two areas when they reported changes, so they have been linked here as well. Five students said that they began using the SQ3R method and were still using it at the time of the interview. Seven people reported that they either began taking notes while reading, or that they increased note-making activity. One person reported beginning to highlight the text while reading.

Classroom Methods. Nine changes in classroom skills were reported. Four of these involved making more notes during lectures and using them for regular review. One person reported ceasing her previous effort

to make complete lecture notes. The other four changes included making more contact with the professor, and being better prepared for classes.

Taking Exams. Two people reported becoming more relaxed during exams, and a third reported improved performance during exams.

Other Skills. Two students reported that they followed the instructor's advice to habitually use one location for studying.

Objective Two: Students will determine which changes they need to make to cope with the university environment, and they will make those changes.

Objective Two Type Changes

Time Management. The largest number of objective two type changes were in the area of time management. Twenty students reported making changes in the methods they used to organize their time. Nine of these attempted weekly written schedules for up to three weeks after taking the course. After this they developed less formally structured and more personalized methods of planning their time. Six people reported spending more time planning their use of time, and three others began writing their schedule either in part, or occasionally. Two people reported becoming convinced that their previous methods of scheduling were satisfactory.

Reading. Students reported 17 objective two type changes in reading related activities. Some students reported more than one change in this area. Six students began some form of scan-reading. Three others began practising some aspects of SQ3R. Two said their reading comprehension increased; and two reported needing less time for reading. Two students became convinced that their previous methods of reading were satisfactory.

Other Changes. Thirty-two objective two type changes were reported which were not related to time management or reading. These changes included, in order of frequency: increased academic accomplishments (6), acquisition of the manual, How to Study (Deese and Deese, 1979) (4), improved memory (3), redetermined priorities (2), more confident about academic abilities (2), transferred faculties (2), dropped one or two courses (3), withdrew from university (2), more relaxed in exams (2), more excited about course work (1), used relaxation technique to fall asleep at night.

Summary

The study skills course was a factor in a change process for nearly 80 percent of the students who took the course, and were interviewed. Among this 80 percent each student reported an average of 3.34 changes since taking the course. Over one-third (38%) of the reported changes were study skills which had been instructed in

the course. Nearly two-thirds (62%) of the reported changes were either personalized modifications of the specific skills which had been instructed, or they were related to other factors in the students' personal contexts.

An absolute answer to the question, 'Were the course objectives achieved ', cannot be provided. They were achieved to the extent that the course was a factor in the changes which the students reported. Of course, many other factors were also involved in these changes. This research has not included specifications for how many, or what type of changes will fulfill the requirements for successful achievement of the course objectives. This research has provided a statement of the changes that students reported making. It is apparent that some improvements could be made, and it is hoped that the results provided here will provide a base on which to develop further modifications in the course and its evaluation.

Students' Comments and Recommendations

The comments and recommendations that students reported during the interviews are listed below in order according to the frequency with which they were reported. These comments are reported in Table 6 on the following page.

Table 6

Students' Comments and Recommendations

About the Study Skills Course

	Comments and Recommendations	Frequency
1	It was a good course.	19
2	The instructor was good.	11
3	The course was too long.	8
4	The class discussions were good.	7
5	It was good to be with students with similar problems.	4
6	The course was taught by a poor instructor.	4
7	The course was common sense.	4
8	More time should have been spent with individual students.	4
9	The techniques would have helped more if I had applied them.	3
10	Not enough time was spent on motivation.	3
11	There should be some follow-up classes.	2
12	The small group exercises did not work.	2
13	The course was okay.	2
14	The course was mostly not personally relevant.	2
15	There should be more lectures.	2
16	The course was too groupy.	2

	Comments and Recommendations	Frequency
17	The course was boring.	2
18	The instructor lacked confidence.	2
19	The instructor was out of touch with first year students.	1
20	The instructor lacked enthusiasm.	1
21	The course was just a beginning.	1
22	The relaxation exercise was most valuable.	1
23	The course was not what I wanted.	1
24	Evening was a bad time.	1
25	The instructor was good; he did not pretend to know the right way.	1
26	"I did not understand what was happening in the class." (a language problem)	1
27	"The course would have helped more if I had not dropped all but one of my academic courses."	1
28	There should be more on essay writing and memory.	1
29	The course was namby-pamby.	1
30	There was too much discussion.	1
31	There should be more on science.	1
32	There should be more on pre-med.	1
33	The people were friendly.	1
34	There should be more informal conversation and exchange of personal experiences.	1
35	"I recommended the course to others."	1

	Comments and Recommendations	Frequency
36	The course was not sufficiently serious or sophisticated.	1
37	"I got what I wanted in one session."	1
38	"I enjoyed the informal approach."	1
39	"I now know what I should be doing"	1
40	"I learned about essay writing from Deese and Deese."	1
41	"I would have liked to learn some other methods of scheduling."	1
42	The course was too simplistic.	1
43	The course should include more work on individual skills areas.	1
44	The course should start earlier in the term.	1
45	There should be more for engineers.	1
46	There should be more work on scheduling.	1
47	"I used the hand-outs to design my own changes."	1
48	The course should have been longer.	1
49	The class members did not participate enough.	1
50	The staff should be more experienced.	1

Twenty-one students (50%) made positive comments about the course. Sixteen students (38%) made predominantly negative criticisms. Of these sixteen, seven suggested that the course would be suitable for someone else. Six students (12%) were non-committal, or

neutral about the general value of the course.

The comments were grouped about three concerns, (a) the instructor, (b) the method of presentation, (c) the contents. Comments varied greatly, and there was no single major issue. Students were polarized in equal numbers about the three areas mentioned above, ie., some thought the instructor was unacceptable, others were satisfied with the instructor; some thought the course was too informal, others enjoyed the informality; some thought that more technical skills should have been instructed, others thought there should have been more interpersonal communications.

The wide variation of comments and recommendations students made about the course reflected the heterogeneity of individual differences. Fifty-one percent of the comments were either unfavourable or suggested essential improvements. Forty-nine percent were favourable. Those who liked the course usually liked the instructor, the informal group discussions, or the other students. Criticisms were made about the length of the course, the content, the group format, the instructor, and the students. Comments were made for and against most aspects of the course. This was possibly a result of the diverse population.

It is also interesting to speculate about the comments that students made who reported making no changes. A close reading of the comments that these students made about the course has shown that these students changed in relation to what they did not do. For example, one woman, who said the course was 'namby-pamby', explained that nothing that was offered in the course was better than what she was already doing. She particularly disagreed with the method of writing a schedule, which she found unsuitable for her style of completing one block of work, or project, at a time. She would do one task to the exclusion of any others, complete it, and then take some time off before beginning another. Although she came to the course hoping to find a better method of scheduling, she left convinced that her previous method was already the best. Although her response was not recorded as a change, it is apparent that a change occurred. One man said he found out what he should be doing, and he thought that one day he would change his study methods, but he felt that at the time he did not want to make the effort to change. He attended all three classes, and enjoyed them. Although he did not report a change it is apparent that he was not uneffected by the course. One man who reported no change said the course was common sense, and that there was no 'magic

pill' to improve study methods. Because he was already working as hard as he could, he continued to do more of the same. Perhaps the change in this case was attitudinal. The other six students who reported no change demonstrated that they had reacted to the course.

The interpretation of the 'no change' response which is being suggested here is that students who reported 'no change' may still have benefited from the course.

Changes in Grade Point Averages

Students who were in grade 12 during the year preceding their attendance in the study skills course: Thirty-three students who took the study skills course during the Fall of 1981 were included in this sample. The average grade for these students at the end of grad-12 was 74.6. At the end of first term at university (after having taken the study skills course) these students attained an average grade point average of 6.2 on the stanine scale. The average grade of all the classes in which these students had been enrolled during the Fall of 1981 was 6.07.

Students who were in attendance at the University of Alberta during the year preceding their participation in the study skills course: These students attained an average grade point average of 6.0 on the stanine scale at the end of the year preceding the study skills course.

The average class average for all the classes in which they were enrolled at that time was 6.08. After they had taken the study skills course, these students attained an average grade point score of 6.6. The average of the class averages in which they were enrolled during the Fall of 1981 was 6.32. The students' grade point average increased by 0.6 points, while the class average increased by 0.24 points. The students' grade point average increased by 0.36 points more than the increase in the class average.

These results were subjected to a single sample *t* test of significance. The change in the class averages was used as the population mean. The variance of the change in individual grade point averages was 1.5. The value found for *t* was 1.58 (df=1, n=29). The level of probability was greater than 0.10. Therefore, the null hypothesis could not be rejected.

CHAPTER V

DISCUSSION

Comments on the Interview Method for Obtaining Self-Reported Changes

Advantages. The principle advantage of asking students to report what changes they had made since taking the study skills course was that much information was obtained which would not have been obtained had students only been required to respond to a standard study skills inventory. For example, nearly two-thirds of the reported changes were the Objective Two type: ie., these changes did not appear to be directly related to the specific technical skills which were instructed in the course. This means that according to the standard study skills inventory criteria, the majority of changes reported in this study would not have been evaluated as improvements. It may be useful for future investigators to know that two-thirds of the students in this study made changes which would not traditionally have been among the measured outcomes of a study skills course.

Another advantage of the interview method was that students could be requested to be specific about the changes they had made. This possibility resulted in responses which revealed how the majority of reported

changes had been personally tailored by individual students to suit their own needs. This implication provides information on which to base some recommendations for changing the way that future courses are instructed and evaluated. These recommendations will be discussed subsequently.

Another advantage of the interview method for soliciting self-reported changes was the the inherent non-directionally-biased nature of the interview question itself. Students were asked simply to describe what changes they had made, or what they were doing differently. The question did not imply what type of changes were being sought. For example, some students reported spending more time studying, and others reported spending more time on social or recreational activities; some students reported developing more structured methods of time management, while others simply began spending more time thinking about how they would use their time. The value of the non-directionally-biased question was that students could make their own decisions about which changes were worth reporting. The result was that the students reported a variety of unexpected changes. This information is useful for developing an understanding of the kinds of changes that students may need to make to improve their study skills.

Disadvantages. One disadvantage of the interview method was the amount of time required to interview the students and summarize the results. Based on the experience gained in this study certain recommendations will be suggested for increasing the efficiency of obtaining self-reported changes.

Comments on the Interview Method for Obtaining Students' Comments

Advantages. The comments obtained from the students revealed a diversity of attitudes about the course. This finding illustrates the differences between individual students. The study skills student population was definitely heterogenous. This information can be used as a basis for developing future instructional approaches. For example, several types of study skills courses could be offered to satisfy the various interest groups. It is also possible that some study skills students might be better advised to consult with counsellors individually. Recommendations for adjusting the course to suit individual differences will be suggested subsequently.

Disadvantages. There were two main problems with the information obtained from the students' comments about the course. For one, the statements were largely non-specific. Therefore, it was difficult to draw any

definite conclusions. Secondly, the comments lacked constructive information on which to base suggestions for improvements. Perhaps the one general conclusion to be made about the solicitation of students' comments is that students can not be expected to make well informed or constructive statements about how to instruct study skills courses. As a result of this conclusion it is suggested that the benefits to be obtained from the interview method of soliciting students' comments do not warrant the effort required to collect them. Similar benefits could likely be obtained through the use of standardized written questionnaires.

Comments on the Method Used for Analyzing the Changes in Grade Point Averages

The results obtained from the analysis of changes in grade point averages were similar to those obtained in a majority of similar studies. The lack of statistical significance may be due in part to the fact that the study skills course is a relatively minor factor among the many factors that influence students' grade point performances. The conclusion reached in this study is that the statistical method which has been applied here does not yield much useful information. A rationale for an alternative method for evaluating changes in grade point averages is presented below.

A rationale for developing an alternative method for evaluating changes in grades. It is suggested here that study skills courses should definitely be concerned with helping students achieve their grade point objectives. Perhaps a more idiographic method for evaluating grade point changes needs to be developed. The results of this study show that some students had very definite grade point objectives, while others did not. Some students were seeking admission to competitive programs. Other students had certain personal standards they wanted to achieve. Some students were more concerned with reducing the amount of time they were studying than with increasing the results. It is suggested here that methods need to be developed for assisting the students who do want to increase their marks; and methods should be developed for evaluating the effectiveness of this assistance. These methods should be consistent with the attempt to help individual students express and achieve individual objectives. Some suggestions to this effect will be presented subsequently.

Comments on the Effectiveness of the Study Skills Course

(1) One definite conclusion is that 80% of the interviewed students reported having made an average of over

three changes since taking the study skills course. This finding may imply that the course had a beneficial impact on most of the students who attended. These findings can not be used to support the suggestion that students would not have made these changes if they had not taken the course. Indeed, the diversity of reported changes could imply that the students had already been individually motivated to make personally relevant changes, and they might well have made these changes whether or not they attended the course.

(2) It is suggested here that the study skills course functioned as a focus for the process of change. This function may have occurred because students were involved in a three step procedure: (a) Students first had to make the choice to take the course, (b) Students had to make a form of commitment by attending the first class, (c) Lastly, students had to make decisions about whether to practice the recommended methods, maintain their previous methods, or make compromise modifications. If this procedure was implicated in the students' processes of change, then students were assisted in their attempts to change by having the opportunity to take the course.

It is hypothesized here that the effectiveness of the study skills course was due less to the particular

skills which were instructed than to the opportunity afforded students to become engaged in a general process which facilitated change. Part of the support for this hypothesis is the preponderance and diversity of Objective Two type changes. One of the most effective aspects of the course appears to be that it facilitated a variety of changes among a variety of students.

It is suggested here that the effectiveness of the course might be increased if instructional procedures could be deliberately designed to assist individual students with defining and achieving individually appropriate changes. This design could be an elaboration of the choice, commitment, and decision-making or change process which seems to have been occurring already. Some suggestions for this design will be presented subsequently.

(3) The specific types of changes reported by students were predominantly grouped in the time management and reading-related skills categories. Perhaps these skill areas should be the focus of future courses.

(4) It is suggested here that the study skills program is an efficient and effective method of assisting students. Certainly the class format is much less costly than individual counselling.

(5) It has been noted that the study skills course was not effective in helping students achieve increased

grade point averages. This finding may be due to the relatively minor role that the course plays in students' grade point performances, or it may be due to inappropriate methods for analyzing changes in grade point averages. Whatever the cause, this is an apparent weakness of the course, and some recommendations for improvement will be discussed.

Recommendations for Instructional Methods

(1) It is recommended that study skills instruction be directed towards supporting and encouraging the change processes that students have initiated by the time they arrive in the first class. This process appears to have involved choice, commitment and change. Instructional methods could be designed to incorporate this process. This would not require a change in course content. For example, in the course as it was presented, students made the choice to continue attending the classes, or to discontinue. However, this choice was not defined as an aspect of the course, and therefore both students and instructors tended to feel unsuccessful if all classes were not attended by all students. The results of this study suggest that students make changes whether they attend one class or all three. If the instructors presented the students with the choice of attending one, two, or three classes, then whatever the student decides,

both parties may perceive the decision as positive, and take full advantage of that choice. The student might decide his time was better spent studying, and the instructor might be content to work with the other students.

If choice of attendance were defined as an aspect of curriculum, then the student would make the choice, the commitment, and the change, regardless of what his decision was.

Many similar changes could be considered. For example, instructors could inform students that certain study techniques would be presented and that each person would have to decide whether the techniques were superior to the methods they were already using. This method of presentation would alter the context so that if students continued their previous methods, they would do so as a matter of choice, rather than habituation. The benefit of defining both possibilities as choices, is that the student continues the choice,commitment, and change process, and that further changes may result. The person who makes a choice potentiates desired changes, whereas the person who makes no choice may have little access to controlled change.

(2) The principle of cooperating with the students' change process could also be applied in the area of help-

ing students increase their grade point averages. Students could be asked to define and state explicitly the changes in grades that they are seeking. This would require students to write out the increases that would satisfy them at the end of the term or the academic year. This process requires a choice, and a commitment. Once these statements were obtained, students and instructors would be able to work towards making whatever changes were required to achieve these objectives. Instruction could be designed to achieve specific results on a measure of productivity. This approach would obviate the need to instruct prespecified packages of study skills.

The general recommendation offered here is to cooperate with the students' self-generated change processes by continuing to create contexts in which all choices, commitments and changes are validated. The next recommendations suggest ways of structuring the study skills program so that these change objectives are maximized.

(3) It is recommended that the study skills program be divided into several different sections. Students would be given a choice of which section they could attend. These sections could be designed to accomodate the comments and recommendations reported by students in this study.

One of the difficulties in offering several sections is the problem of placing right students in the appropriate section. This difficulty could be overcome if all students attended an introductory session, and made their own choices after this. This introductory session could be presented in one or two hours to a large class of students. Several instructors could be involved in a multi-media presentation. Students would be informed of several approaches to learning study skills. Handouts could be prepared which included this basic information plus suggested readings. Students could pick these up at a later date, if they decided they wanted them. During this first session students would have a chance to listen to, or talk with various instructors, hear what was being offered in subsequent sections, and gain information on which to base further choices.

Another problem with offering several sections is having sufficient instructors to offer all the sections at a range of convenient times. This problem would likely be resolved by the reduced numbers of students who would attend subsequent sections of the course. This is a likely eventuality because many students who were interviewed said they would prefer a shorter course. These students would probably decide they had learned what they wanted in the first session. Thus, subsequent

enrolment would be reduced from the present level and fewer sections would have to be offered.

The subsequent sections of the course could include a short, medium and long series of classes. The short course might be comprised of one two-hour class covering some of the traditional techniques in a standard lecture and questions format. The medium length course might be run much like the course which is presently being offered. This format combines lecture presentations with individual problem-solving exercises and group discussions in three one and a half-hour sessions. A longer course, lasting six to ten weeks could be offered for students who would like a sustained group situation. This format would allow for more in-depth discussion, group support, and follow-up discussion of changes.

Other divisions have been requested. Some students would like content specific sections. ie.,engineering, science, arts (essay-writing and speed-reading), law. Older students who have been away from school for some time might prefer a group that was more conversational, and specific to their needs. Perhaps some younger students would want a section which focused on motivation and career choices.

The major advantage of offering several different sections is that students have to make further choices

about what is appropriate for them. When they make these choices they procede further towards making the changes they are seeking.

Recommendations for Evaluative Methods

The evaluative method employed in this study could be incorporated into an ongoing evaluative process. If this were to be done, the follwing modifications and suggestions should be considered:

(1) Develop a computerized system for storage of information about students who take the courses. This would facilitate follow-up studies. If a computer system were available to the Student Counselling Services, it might also be possible to develop individualized study skills learning programs.

(2) Standardize the interview format used in this study. An interview protocol could be formulated based on the three main question areas. This would facilitate collection and analysis of data.

(3) Conduct follow-up interviews by telephone. The results of this study suggest that the data collected by telephone and in-person were equally useful. The use of the telephone saves considerable effort for both the interviewer and the student. Precautions should be taken to ensure that accurate information is obtained, and that no counselling is done by telephone. One way

to do this would be to use telephone interviewers who were not involved in the instruction of the course.

(4) Develop and incorporate an ongoing program of course evaluation and modification. Future evaluations should concentrate on developing criteria for assessing the changes that students report.

(5) Develop an alternative method of evaluating changes in grade point averages. Grade point changes are an important objective of study skills courses. The statistical methods previously employed are not presently providing useful new information. It is recommended that one possible alternative would be to ask students to write their own objectives for increasing their grades. Evaluations could be conducted by comparing students' post course grade point averages with their stated objectives. Information could then be obtained about the effectiveness of various instructional strategies for producing individually specified changes.

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SUMMARY OF INTERVIEWS WITH STUDY SKILLS STUDENTS

A	B	C	Age	Background	Reasons	Changes	Comments	Success, change
11	3	2	55	yr.1 B.Ed. A.D. at time of course, but she is now doing a single course, married kids off to U., had B.A. inLibrary Sci. from 1952	wanted to use time efficiently, and gain confidence to return to university	dropped the A.D. pro- and she is now excited about doing what interests her, instead of doing requirements she plans her time hourly now and gets more done, she passes the hand-outs to her kids at university	good course, she liked the inst'r. and thought it would have helped more if she had stayed in A.D. program	success depends on motivation, and following personal interests, it may take a level of frustration before this is done
12	2	3	20	yr.1 B.A., has been out 2 yrs. since H.S. had 75 av. then, single and living with parents	all skills time efficiency orientation to U.	takes regular breaks now, takes notes while reading, and focuses on main points while reading and in lectures	the course was too long, mostly common sense, there should be more on essays and memory	change occurs by trial and error
13	3	3	21	yr.4 B.Sc., GPA about 7.5, living with great aunt	she sknows she can do better, especially with organization, and priorites	none attributed	the course was namby-pamby, too groupy, there should be more organized lectures, there was not enough on science	success comes from finding what she is interested in, & does well in, the process began in childhood, she realized last summer while doing lab research that that was her calling
14	2	1	58	she was about to take an R.N. refresher course, recently moved to Ed'n. and her kids have left so she feels isolated	wanted some orientation to U., and studying	she did well in the requal. course, and has started working on relief call	the people were very friendly, and she would have liked more conversation and sharing of personal experience	doing well for her means adapting to a new town, and new work, and new friends, the motivation to do this comes from loneliness and spiritual faith
15	4	2	23	yr.2 B.Sc.(Comp'g.), from Hong Kong, did two yrs. of math at U. at home first, single, priv.bsmt.rm., GPA in high sevens.	he had taken the first Evelyn Wood session and was impressed so he was hoping we would provide the rest at less cost	he got nothing out of it except that he uses the relaxation method to fall asleep at night	the course was too long and boring, nothing of real value, poor inst'r.	success means good grades and a good job, this requires careful planning, much thought and hard work

SUMMARY OF INTERVIEWS WITH STUDY SKILLS STUDENTS

A	B	C	Age	Background	Reasons	Changes	Comments	Success, change
16	4	2	24	yr.3 B.A., had been out of U. 3 yrs., had about 6.5 GPA then but was in student politics and wasn't interested in his courses	he wanted specific in depth info. about studying, at a psychological level	none attributed, although he enjoyed being with other like-minded students	the course was not serious or sophisticated, too much group stuff, disliked inst'r., there should be more lectures	success at U. means being narrow-minded and doing nothing but studying, U. is expensive in time and money and he has to do well this time
17	2	1	20	yr.1 B.A. at time of course, but dropped out at Christmas, had 1 yr. working, lives with parents	curiousity	she started scheduling, and blocking out times to do things, she got more done	the course was mostly common sense, she liked being with others with study skills problems	success takes discipline and clear goals, she found out her goals are uncertain right now
18	2	2	42	yr.1 B.Ed., married, has a family, took H.S. courses at night etc. to get admitted	she knew she didn't know how to study and U. was such a big step	just writing out her schedule made her see how well she was using her time already, the course helped her think read and remember better	she said she had not been to enough courses to be able to make comments	she has always wanted to come to university and she is delighted to be here and doing well so far
19	1	3	26	yr.1 B.A., was a medical secretary for 6 yrs, single, sharing an ap't., will transfer to Agric'l.Economics	curiousity,discipline, all skills, she had been out a long time	she schedules now, but not in a regular way, she goes to one place to study, and takes regular breaks	she was impressed with the course, good inst'r. everyone was included, she got what she wanted in one session	success means finding something interesting to do well in, she wanted a goal and a challenge, it took a long time and much confusion before coming to university
20	2	1	25	yr.4 B.Pharm., she has graduated now with GPA about 8.5, she started U. with 5.5. married, no children	she wanted confidence, to know that she was studying the right way	she started taking more lecture notes, and copying them in good the same night, and reviewing them that week, this helped a lot, also she was reassured that her study methods were okay	good course and inst'r. she liked being with the other students	success is mostly a result of arranging a balanced personal life with school, getting married was a big help, as her marks increased so did her self-esteem

SUMMARY OF INTERVIEWS WITH STUDY SKILLS STUDENTS

A	B	C	Age	Background	Reasons	Changes	Comments	Success, change
21	3	1	26	yr.1 B.A., was a labourer for 6 yrs., single, living with his mother, had poor marks in H.S., about 6.5 now	he wanted to check it out	none attributed	liked the course and and the informal approach, now he knows more about what he should be doing	doing well here depends on taking interesting courses from interesting profs, and meeting interesting people, work was becoming boring
22	2	3	21	yr.3 B.A., had done 2 2 yrs. at Concordia, plus a yr. working, he is an immigrant from the Phillipines, liv- with his family, only had passing GPA at Concordia	he wanted specific techniques, he had been to see a counselor before who told him about the book and the course	bought the book, uses file cards for essay writing, it helps uses scan reading now, and is more aware of scheduling, GPA up to about 6-7	good course, he learned about paper writing from the book	two things have been important, making up his mind to specialize in psych., and coming to the real U. instead of Concordia, he says he still needs discipline
23	3	1	31	yr.2 B.A.,out of U. since 76, married, has children, was in army and sales, father started Law at 42, his son wants Law too	he had been out a long time, and had never been a great student, now he wants good marks wanted help with time use and essays	he tried the written schedule for a few weeks and quit, but is more aware of time now, he takes more lecture notes and reviews them	good course, it would have been more help if he knew then what he knows now about his own methods, would have liked some other methods of scheduling	success means meeting a challenge, the business world was not giving him what he wanted, when he becomes complacent he makes a change
24	1	2	30	yr.3 B.A., did first 2 yrs. in Home Ec. with top marks, she was out 2 yrs., now taking mostly Eng.Lit.,single, living alone	she wanted better efficiency, concentration,memory, reading, and writing	she uses a written schedule now to make sure she does some of each course each day, also takes regualar breaks	the course was too simplistic, the inst'r. had nothing to offer her, should have been more individual attention, and info. on specific skills areas	discipline and interest are the keys, the prof is very important, it's a result of realizing one's own priorities
25	-	-	20	yr.1 Eng'g., in H.S. last year, on st.visa from Hong Kong,single, sharing bsmt. with Chinese, he signed up for for the course but was not phoned so he did not take it	he has a 7.7 GPA so far this year, but his dad is paying and he must do well to get a good job and maybe live in Canada	not applicable, he only signed up, but was never contacted, so he missed the course	he says he is lazy, and watches too much T.V., so the course would have been good for him	he says determination is most important to doing well, besides he has not much else to do in Ed'n.

SUMMARY OF INTERVIEWS WITH STUDY SKILLS STUDENTS

A	B	C	Age	Background	Reasons	Changes	Comments	Success, change
26	3	3	29	yr.2 B.Sc., pre-med., has a B.Ed. and taught Voc.Ed. 2 yrs., married and 2 children	all techniques	he now follows a rigid schedule in the library talks more with profs. and students, watches time closely in exams, and has developed a vast variety of techniques	good course, liked the instructor and the group involvement	he sees school as a job with longer hours, this goal has great meaning to him and his family and it is very expensive
27	2	3	18	yr.1 Eng'g., he had about a 6 GPA before Christmas but quit to work on the farm	he knew he was a slow reader with a poor attention span and easily bored	none attributed but he left school, and is now taking Math 31 to get ready for next year	it was okay, could have been shorter	he should have taken university seriously, he thought it would be like high school
28	3	3	24	yr.3 B.A., pre-law, had done 2 yrs. at Faculte St.Jean but was only getting 6.2 and 7. Single, shar- apartment.	she always felt unconfident about academic abilities, now she wants the marks	bought the book last summer, she now reads for main points, schedules in her mind, gets regular exercise, feels more confident	liked the supportiveness of the group, good instructor, not all for her	she says the most important thing in doing well for her, is to not tie her self-esteem up with her marks
29	3	3	22	yr.1 Eng'g.,but he is taking Comm. courses now, took 1 yr. Radio & TV from Nait and worked 1yr, at a station	NAIT was more structured, he wanted info. on time use, and how to deal with all the info.	he has developed a flexible schedule, gets more done, takes Fri.and Sat. nights off, feels better prepared, more relaxed	good course, liked individual participation, and suggestions from others, course should start earlier in term	one has to relate new concepts to personal knowledge, have a long term goal, priorities, and a schedule
30	?	1	19	yr.1 B.A., out working 1 yr. since H.S., had about 75 in gr.12, and a 6 GPA last term, single, living with friends in Leduc	wanted to know about scheduling and any pointers	he is better organized this term, GPA up, plans ahead, more time to relax and socialize	it was okay, could have been shorter, didn't remember much	success, he says depends on discipline, having time to do other stuff than study, change results from trial and error
31	2	1	23	yr.1 B.Sc.(comp'g.sci) out working 5 yrs., 73 in H.S., married	wanted a refresher, mostly on organization	none attributed, he reverted to his high school ways, trying to get organized now	it was common sense, anyone who doesn't know that stuff shouldn't be here, too long, boring	he got married and now he thinks of the future, he is afraid of failing computing science

SUMMARY OF INTERVIEWS WITH STUDY SKILLS STUDENTS

A	B	C	Age	Background	Reasons	Changes	Comments	Success, change
32	1	3	18	yr. 1 B.Sc., wants into Eng'g.,did better than av. in H.S.	he found the work was piling up in his first month, and he was work-too hard with too little result	he found some of his weak points, started highlighting, and taking notes while reading, helps him remember	he says he didn't get much out of the first session, and he prefers to sleep in Saturday morning, so he quit the course	he says he wants into Eng'g., but fear of failing cases hims to choke, needs to stop worrying
33	3	1	22	yr.2 B.A., was out working four years, was an Hon's. student in H.S., but lazy, single, living with parents	she feels she is unable to concentrate and has a poor memory	none attributed	she says the techniques would have helped more if she had applied them, but she wanted to more on motivation, and says she tried talking to inst'r. but got nothing	discipline is most impor-to doing well, she likes her goal and school, but doesn't like the work
34	3	3	35	yr.2 Canadian Studies, 7 GPA last year, 15 yrs. travel agent before, single, priv.accom., also has full time job	she wanted to know the right way to study, she felt she was lazy about it	delighted to know she reads fast, now uses scan reading but feels it is cheating, now knows her way is best for her, she just does whatever feels right at the time	she was impressed with the instructor and en-joyed helping and being helped by others in the class, mostly she says she didn't get much out of the course	success means following her own rhythm, always doing something, she enjoys adapting to new challenges
35	3	2	22	yr.3 B.Ed.,did 2 yrs. first at Camrose C., was in res., now at parent's house, GPA was 5.5 last yr.	he thought U. would be harder than College, he didn't know how to sche-dule	he follows a schedule now and gets evenings and week-ends off, GPA up to 7	good course, good inst'r. liked the format, and the hand-outs, length was okay	he is happy with 7 GPA and with his schedule, and with his student teaching, moving out of res. made all the difference
36	3	1	18	yr.1 B.Comm., she had 85 av. in H.S., living with parents	she knew she was lazy, she thought that U. was harder, her parents expect good marks	she tried a written sche-dule and SQ3R but soon reverted, now she only lists all short term priorities, and gets them all done on time	she wanted more time to review the use of the schedule and talk to the instructor, liked the course and the inst'r.	sevens are okay for now, she thinks that some day she will have to stop being lazy, but now it is more important to make time for friends

SUMMARY OF INTERVIEWS WITH STUDY SKILLS STUDENTS

A	B	C	Age	Background	Reasons	Changes	Comments	Success, change
37	1	1	22	yr.2 B.Comm., was at NAIT Bus.Admin. 1 yr., took this term off U., had Hon's. at NAIT and only av. GPA here, single, living with parents	time management reading, and note-taking	he bought the book and is reading it now and realizes that technique is less important the motivation which is personal	he didn't remember the course well, but he would have liked it in one session	discipline, ability and motivation, changes are made using a problem solving formula
38	1	2	20	yr.2 B.Sc.(comp'g.sci) had top marks in H.S., 6 GPA last yr. and 6.5 this yr., living at parents house	he was worried about his marks in the first yr., wanted general skills, especially organization	he uses a daily schedule now and finds that it helps him be sure to get everything done	he wanted a course that was more one to one so he took the hand-out and made his own changes	doing well means using time efficiently, and it took a bad year for him to stop and make some changes
39	2	1	18	yr.1 B.Comm., had 85 av. in gr.12, had a marginal score on Eng. Competency test, about 8 GPA this yr. living with parents	knew he had poor study habits in high school and was worried about how hard university would be	he scan reads now and reads actively to understand, takes less time and better results, other habits are changing imperceptibly	good course and inst'r, liked discussions, he would have liked it 1 hr. for 6 wks. so to have time to do follow-up discussions	it's important to take courses he enjoys, even if it is economics and math, profs make a lot of difference
40	2	2	32	Spec.St. in qualifying year for M.Ed., he is in now with 8.8 GPA, recently seperated, had B.A.(Econ.)	wanted more time efficiency, he was always in a crisis state, poor concentration and memory	he is more aware now of what is involved with studying	he did not get much from this inst'r., he thinks some people did, and she was trying hard, the small group exercises did not work people did not participate	success depends on having a clear goal, working hard, and being able to relax, he sees U., as a game, and he is a strategist, he changes through crises, though he wants to change this too
41	3	3	19	yr.1 B.A., wants into B.F.A. (drama), out working 1 yr.,av.marks in H.S., now 6 GPA, does extracurricular drama work	wanted to use time efficiently, she had other things to do besides courses, she always had poor study habits	she now uses whatever time she can find to study, she's getting by with some marginal marks	she liked the course presentation and the inst'r. though she felt much did not apply to her	for her now, doing well in acting is the most important thing, she found her interest in gr.12 and and has not had to make any major changes

SUMMARY OF INTERVIEWS WITH STUDY SKILLS STUDENTS

A	B	C	Age	Background	Reasons	Changes	Comments	Success, change
42	4	2	22	yr.3 Eng'g., GPA 6.5 last yr. and up a little this yr., single, priv.ap't.	he was questioning his choice of discipline, and thought if he could not do better than av., then he should do something else, he had poor concentration in lectures	now reads for main points while reading and makes notes,	he thought the inst'r. lacked confidence, he would have liked some some experienced staff, not enough in the course for engineers	he thinks it is important to know what he will do with the degree, he wants to be independent, he doesn't see himself as a NAIT person, his father always wanted to be an engineer
43	3	5	20	yr.2 pre-law, 7.6 GPA last yr., living in a frat with highest GPA, wants a course at the frat house next fall	he wanted to review all the common sense stuff	he now uses SQ3R, and scanning, which saves time, is trying to develop a schedule that will work, writes down short and long term goals	good course, recommended to others, maybe there could be some follow-up later in the year	he says he needs a clear goal and interesting studies, one helps the other, it is a constant process